

ANSWERS TO BRAIN TEASERS (see page 22)

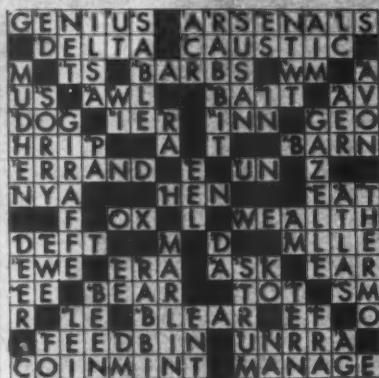
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FOR FURTHER READING

Sun Tan

For free copy of "Sense in the Sun," and "Cancer of the Skin," write to: American Cancer Society, P.O. Box 4444, FH, Grand Central Sta., NY, NY 10017.

For free copy of "... About Sunglasses," write to: American Optometric Assoc., P.O. Box 13157, FH, St. Louis, MO 63119.

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Cattle and Man

Burton, Maurice, *Animals of Europe*, Holt, Rinehart, Winston, New York, 1973.

Kyle, Russell, "Cattle and the Course of Domestication," *Animals*, Feb. 1973.

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SCIENCE ON TV

Jane Goodall and the World of Animal Behavior
(Wed., May 22, 8:00 p.m. EDT, ABC-TV)

Hal Holbrook narrates this rebroadcast of *The Baboons of Gombe*, a fascinating study of the habits and behavior of baboons at Gombe National Park, in Tanzania. The program was filmed over a period of several years by Jane Goodall and her husband, producer-photographer Hugo Van Lawick.

Jane has been studying animals in Africa since 1960. She and her husband have been responsible for some of TV's finest animal studies. In filming this program, they made a special effort not to make friends with the animals. Why?

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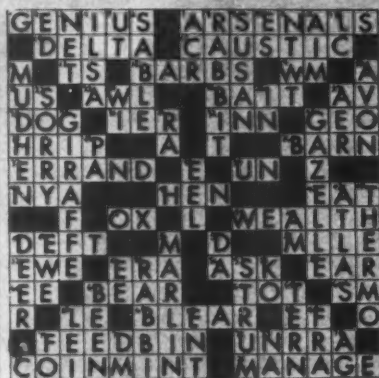
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DIRTY RIVER

Every week, students took the river's "vital signs" at four different sites. TOP: Spotting these sites on a map of the Botanical Gardens. BOTTOM: Students check out "white water." This site was chosen because rapidly running water contains much oxygen. And more oxygen means more life.



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Project members are attacking the problem of a dirty river from all angles. Some students are taking the river's "vital signs." They make temperature, oxygen-content, and pH (acidity) tests on the river's water. These tests tell what kinds of life can survive in the polluted river.

On a seven-mile hike along the river, students saw many pipes just pouring sewage into the water. And where sewage pours in, living things die.

Student photographers are taking many pictures of the banks of the river. Why? The pictures will become part of a public exhibit at the New York Botanical Gardens, designed to explain the Bronx River Project.

Although the river is in sad shape, project members have hope. Now that they have data showing where the river is most polluted, they are trying to get the help of Westchester and Bronx political leaders. They want to stop sewage-dumping in their river, and, perhaps, send the messy stuff off to a sewage treatment plant where it belongs. —Hope Schreiber

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Lucas, John, and Roger Lock, "Bubbles Remember the Message," *New Scientist*, Apr. 12, 1973.

Bobek, Andrew H., and H. E. D. Scovil, "Magnetic Bubbles," *Scientific American*, June 1971.

Cusack, Michael, "Magnetic Bubbles," *Science World*, Mar. 22, 1971.

Volcano

Burnham, C. W., "Exploding Volcanoes," *Chemistry*, Nov. 1972.

Lokey, William M., "Crater Studies at a Sleeping Volcano," *Explorers Journal*, Sept. 1973.

"Satellites Help Keep Volcano 'Watch'," *Earthquake Information Bulletin*, May-June 1973.

"A Link Between Earth Tides and Volcano Eruptions," *Science News*, Oct. 21, 1972.

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TV Test

After 8 weeks, Ruby had earned 2/3 of \$360, or \$240 and 2/3 of the TV set. \$240 — \$170 = \$70, which must equal the value of 1/3 of the set. The set was worth \$210.

Toast to Toast

Three minutes. Let A, B, and C represent the slices, and 1 and 2 represent the sides. In the first minute, toast A1 and B1. Then toast A2 and C1. Finally, toast B2 and C2.

Island Idiocy

There was one liar. The first native would have said, "No, I am not a liar," whether he was or not. Then the second native was telling the truth. If the first native were lying, then the third was not. If the first wasn't the third was.

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